

Fig. 1

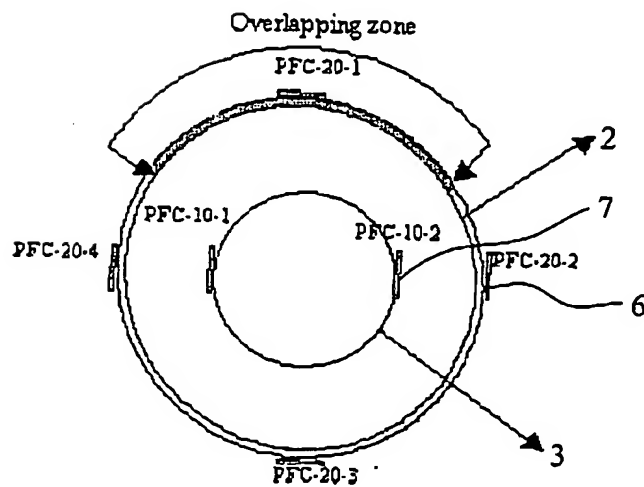


Fig. 2

Specimen	Number of FRP layers	Inner steel tube
DS11	One	$D/t=76/3.22$
DS12	One	$D/t=76/3.22$
DS21	Two	$D/t=76/3.22$
DS22	Two	$D/t=76/3.22$
DS31	Three	$D/t=76/3.22$
DS32	Three	$D/t=76/3.22$

Fig. 3

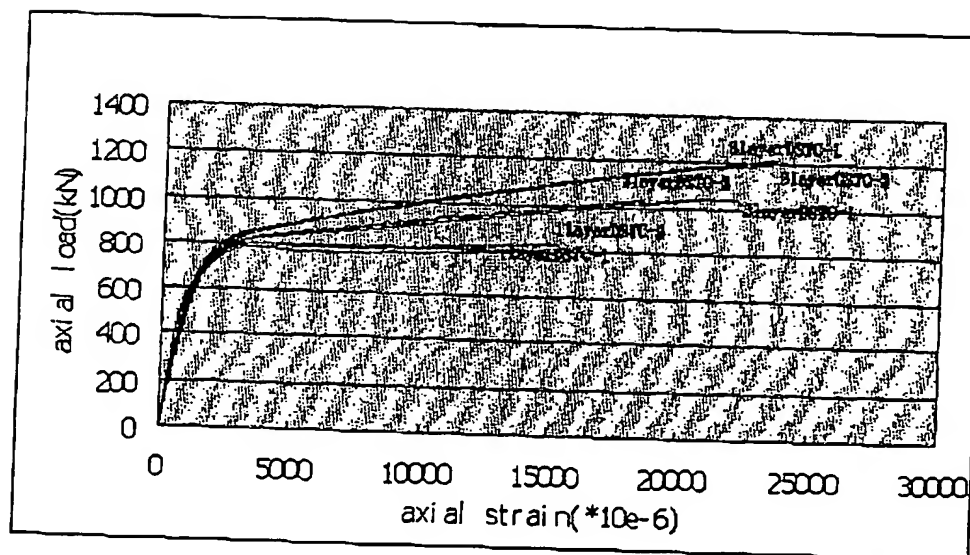


Fig. 4

Label	Pco (kN)	Ps (kN)	Pc (kN)	Ave Pc (kN)	fcc (MPa)	fcc/fco	$\epsilon_a (\times 10^{-6})$	Ave $\epsilon_a (\times 10^{-6})$	$\epsilon_a / \epsilon_{co}$
DS11	543.58	282.6	793.75	811.51	38.86	0.98	14208	14542	5.53
DS12			829.27				14875		
DS21			1044.15	1034.47	55.24	1.39	22000	20204	7.69
DS22			1024.79				18417		
DS31			1214.07	1207.99	68.00	1.71	23666	23541	8.96
DS32			1201.91				23416		

fco — unconfined concrete strength;

Pco --- calculated ultimate load of unconfined concrete

Ps --- calculated ultimate load of inner steel tube

Pc --- ultimate load obtained in the test

fcc --- calculated confined concrete strength

ϵ_a --- ultimate axial strain of DSTCs

ϵ_{co} --- strain at peak stress of unconfined concrete

Fig. 5